through said introduction holes to said film deposition chamber to strike the substrate and thereby clean the substrate.--

--6. A CVD system as set forth in claim 1, wherein said cleaning gas is a gas selected from the group consisting of O_2, H_2, F_2, N_2, dilute gas, halide gas, and mixtures thereof.--

REMARKS

Claims 1-6 are pending herein. By this Amendment, claims 1 and 3 are amended and new claims 5 and 6 are added. No claim is cancelled. Support for the amendment of claims 1 and 3 can be found in the specification, for example, at page 8, lines 17-18. Support for new claims 5 and 6 can be found in the specification, for example, at page 9, lines 2-13. Thus, this Amendment does not introduce new matter.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

I. Rejection under §102

Claims 1-4 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by Hara et al. (U.S. 5,648,276). Applicant respectfully traverse this rejection.

The Office Action asserts that the mesh electrode disclosed as part of the CVD system of Hara corresponds to the lower plate of the claimed invention. As amended, claims 1 and 3 specify that the lower plate of the claimed CVD system is connected to ground and that the introduction holes of the lower plate only pass radicals to the film deposition chamber. In contrast, the mesh electrode disclosed in Hara is not connected to ground, but is "supplied with a variable voltage." See Hara, col. 7, lines 18-19. Because the lower plate of the claimed CVD system is connected to ground it is possible to introduce only the radicals through the introduction holes of the lower plate. However, because the mesh electrode of Hara is supplied with the variable voltage it would not be possible for the mesh electrode of Hara to introduce the radicals only into the film deposition chamber.

In addition, the introduction holes formed in the claimed lower plate are designed to pass the radical only. This feature is also absent from the mesh electrode disclosed by Hara.

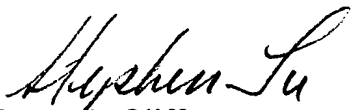
In view of the above remarks and the amendments of claims 1 and 3, Applicants submit that this rejection is overcome. Reconsideration and withdrawal of the rejection are respectfully requested. Furthermore, new claims 5 and 6 are patentable over the cited reference for at least the reasons discussed above.

II. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the Applicants' representative at the telephone number listed below.

Respectfully submitted,



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Attachment:
Appendix

Date: February 6, 2003

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P.O. Box 19928
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DEPOSIT ACCOUNT USE AUTHORIZATION
Please grant any extension necessary for entry;
Charge any fee due to our Deposit Account No. 15-0461

APPENDIX

Changes to Claims:

Claims 5 and 6 are added.

The following is a marked-up version of the amended claims 1 and 3:

1. (Amended) A CVD system provided with a plasma generator having a plasma generation chamber separated from a film deposition chamber in which a substrate is arranged, wherein a material gas is directly supplied into the film deposition chamber, radicals in the plasma are introduced into the film deposition chamber from the plasma generator through introduction holes of a lower plate, and a thin film is deposited on the substrate, said CVD system further comprising:

a cleaning gas feeder provided to said plasma generator,

said lower plate is connected to ground, and

each of said introduction holes is designed to pass the radicals only to the film deposition chamber.

wherein a cleaning gas is introduced through said cleaning gas feeder to produce plasma in the plasma generator and generate radicals, and the radicals are introduced through said introduction holes to said film deposition chamber to strike the substrate and thereby clean the substrate.

3. (Amended) A substrate cleaning method comprising:

depositing a silicon-based film on a substrate,

converting the silicon-based film to a crystalline silicon film by laser annealing,

depositing a gate insulating film on said crystalline film by a CVD system comprised of a separate film deposition chamber and plasma generation chamber using a

lower plate with introduction holes, wherein said lower plate is connected to ground and each of the introduction holes is designed to pass radical only in plasma.

generating plasma by use of a cleaning gas in said CVD system at a stage before forming the gate insulating film and emitting only the radicals in the plasma through the introduction holes of the lower plate on the crystalline silicon film to clean its surface.